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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,892	08/18/2000	Hiroshi Izui	195942US0	6721

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EXAMINER

DAVIS, KATHARINE F

ART UNIT PAPER NUMBER

1636

DATE MAILED: 09/13/2002

18

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/641,892

Applicant(s)

IZUI ET AL.

Examiner

Katharine F. Davis

Art Unit

1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,15,16.                      6) ☐ Other:

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### **DETAILED ACTION**

This Office Action is in response to the application filed on August 18, 2000 and to the Preliminary Amendments filed on November 9, 2000, November 27, 2000, March 26, 2001 and October 3, 2001 respectively. Claims 1-13 are pending in the instant application.

#### ***Information Disclosure Statement***

The information disclosure statements filed November 20, 2000, July 6, 2001 and August 5, 2002 citing applicants' co-pending applications have been considered by the examiner.

#### ***Claim Objections***

Claims 1, 10 and 13 are objected to because of the following informalities: Claim 1 recites the phrase "...and has ability..." in line 4. This claim appears to be missing an article such as "the" before "ability". Claim 10 recites the phrase "...adjusted to a pH..." in line 4. The article "a" should be the article "the". Claim 10 also recites the word "claim" in line 3. It appears that "claim" should be in the plural, "claims". Claim 13 recites the phrase "...wherein a pH..." The article "a" should be the article "the". Appropriate correction is required for claims 1, 10 and 13.

Claims 2 and 12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim (claims 1 and 11 respectively). Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 is drawn to a microorganism which can metabolize a carbon source in a liquid medium and claim 2 is

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drawn to the microorganism of claim 1 which can grow in the liquid medium. If a microorganism is metabolizing a carbon source it is growing thus claim 2 does not further limit claim 1. Claim 11 is drawn to selection of a strain of microorganism that can metabolize a carbon source in a liquid medium and claim 12 is drawn to a method according to claim 11 wherein a strain that can grow in the medium is selected as the strain that can metabolize the carbon source. As above, if a microorganism is metabolizing a carbon source it is growing thus claim 12 does not further limit claim 11.

Claims 7-10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). In the instant claims, claim 7 depends from claims 1-6 and claim 4 is a multiple dependent claim and claim 10 depends from claims 1-9 and claims 4 and 7 are multiple dependent claims. Claims 7-10 have been examined on the merits as if there were in proper format.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 1-3, 7 and 8 are rejected under 35 U.S.C. 101 because they are drawn to non-statutory subject matter. Claims 1-3 (and claims 7 and 8 reading on claims 1-3) read on a microorganism that is naturally occurring (untouched by the “hand of man”). Naturally occurring microorganisms are products of nature and products of nature are not patentable. Amending the claims to recite “A purified or isolated culture of a microorganism...” would overcome this rejection.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the term “the pH” in line 6. There is insufficient antecedent basis for this term in the claim. Amending the claim to read “the **specific** pH” would overcome this rejection.

Claims 1 and 11 recite a phrase “...medium containing L-glutamic acid at a saturation concentration and the carbon source...” This phrase is unclear, it suggested that the claims be amended to recite “...medium containing the carbon source and L-glutamic acid at a saturation concentration ...”

Claim 4 recites characteristics (a) and (b) since the claim requires the microorganism to have either (a) or (b) but not both characteristics, the term “and” in line 5 should be amended to the term “or”.

Claim 4 recites the phrase “...enhanced in activity of an enzyme...” in (a). It is unclear what enhancements are encompassed by the claim thus rendering the metes and bounds undetermined.

Claims 4 (and 6) recites the phrase “...reaction branching...” in (b). It unclear how a reaction can branch.

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The phrase "...and producing a compound other than L-glutamic acid by" that concludes claim 4 is unclear. It is suggested that the word "by" be deleted from the phrase.

Claim 5 recites the phrase "...at least one..." in line 3. This phrase is unclear and it is suggested that the phrase be deleted from the claim.

Claim 7 recites the phrase "...belongs to..." in line 2. It is suggested that the phrase "belongs to" be deleted and replaced with "is from".

Claim 10 recites the phrase "...the medium" in line 6. There is insufficient antecedent basis for this phrase in the claim. Amending the claim to read "...the **liquid** medium" would overcome this rejection.

Claim 11 is drawn to a method for screening a microorganism, however the steps of the method appear to be drawn to identification of a microorganism, thus it is suggested that the claim be amended to read "a method for **identifying** a microorganism".

Claim 11 recites the phrase "...fermentation with precipitating..." in lines 2 and 3. This is unclear, thus it is suggested that the claim be amended to recite "...fermentation [with precipitating] **followed by precipitation of** L-glutamic acid in a liquid medium..."

Claim 11 refers to two mediums, a liquid medium in line 3 and an acidic medium in line 5. It is unclear if both the liquid and the acidic medium refer to the same medium or if there are two separate mediums.

Claim 11 is drawn to a method for screening microorganisms suitable for producing L-glutamic acid however the method selects a microorganism that can metabolize a carbon source. This is unclear since there is no nexus between a carbon source and the production of L-glutamic acid in the claim.

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Claim 12 recites the phrase "the medium" in line 2. There is insufficient antecedent basis for this phrase in the claims.

Claim 13 recites the phrase "the medium". There is insufficient antecedent basis for this phrase in the claims.

### ***Conclusion***

Claims 1-13 are rejected. Claims 1-13 are free of the prior art. While many references in the art teach similar microorganisms and methods of using said microorganisms for the production of L-glutamic acid, for example EP 0670370 A2 and EP 0952221 A2 (both IDS references) none of these references teaches or suggests culturing the L-glutamic acid producing microorganisms in an acidic medium containing L-glutamic acid at a saturation concentration as is required by the instant claims 1-13.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katharine F. Davis whose telephone number is (703) 605-1195 with direct desktop RightFax (703) 746-5199. The examiner can normally be reached on Monday-Friday (8:30am-5:00pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel can be reached on (703) 305-1998. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 305-1935 for After Final communications. Any inquiry of a general nature or any inquiry concerning the formalities of this application should be directed to Patent Analyst Tracey Johnson whose telephone number is (703) 305-2982.

Katharine F. Davis  
September 9, 2002



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